Exercise Week10

1. Monty Hall Problem
   i. A game show to win a car.
      i. Three closed doors.
         1. one is car
         2. other two are goats
      ii. You need to select the door which has a car to win it.
      iii. When you select a door
         1. Other than the door you selected, the host (apparently knows where is the car) will open one door which has a goat.
         2. Then the host will offer you a chance to switch to the door which has not been selected by you or been opened by the host.
   ii. Which decision has a better probability to win a car? Switch or not switch? Or the probabilities are the same?

Strategy A: Always switch
Strategy B: Never switch
Please use rand() to simulate 5000 times for each strategy and output the results.

```
%%shell

g++ MontyHall.cpp -o MontyHall
./MontyHall
```

```
If you do not switch, the prob. of winning is: 0.xxxx
If you switch, the prob. of winning is: 0.xxxx
```

Please name your .ipynb file as YourID_Week10.ipynb and upload it to moodle system.
(ex. H3700001_Week10.ipynb)